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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,514	03/15/2007	Kiichiro Kato	24-036-TN	1025
23400 7590 12/08/2009 POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			EXAMINER VONCH, JEFFREY A	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 12/08/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,514

Applicant(s)

KATO ET AL.

Examiner

Jeff A. Vonch

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date 06/30/2009; 10/15/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendments filed October 2nd, 2009 have been entered. Claims 1-3 are currently under examinations on the merits.
2. The rejections of claims 1, 2, 3/1, and 3/2 under Xie et al. (U.S. Patent No. 6,503,620) in view of Eevers et al. (U.S. Pub. No. 2001/055928 A1) has been withdrawn due to Applicant's amendment. However, upon further consideration, a new ground(s) of rejection has been made in view of Furukawa et al. (U.S. Pub. No. 2001/0053648) and Andriash (U.S. Patent No. 5,679,435).

New Rejections

3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 3/1, & 3/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al. (U.S. Patent No. 6,503,620) (hereinafter "Xie") in view of Furukawa et al. (U.S. Pub. No. 2001/0053648) (hereinafter "Furukawa").
6. Regarding claims 1 and 2, Xie teaches a laminate comprised of a facestock bonded to a pressure sensitive adhesive layer (pressure-sensitive adhesive sheet) wherein the adhesive layer

material has its storage modulus and loss tangent measured from T_{\max} -60° C to 200° C (col. 26, lines 51-54). All blends have a storage modulus (G') equal to or greater than 3.7×10^3 Pa at their lowest point (Table X). Xie teaches that Blend 1 has a storage modulus of 3.6×10^4 Pa and a loss tangent of 0.3 at 120 °C (Table X). Blend 4 has a storage modulus at 25° C of 2.4×10^8 Pa and a loss tangent of 0.1 (Table X). Xie teaches that the laminate is a label to be adhered to an adherend, although Xie may not disclose the temperature exposure. With respect to Claim 1, ambient temperature exposures would be expected to include the claimed temperature range. Moreover, the claimed article is not defined structurally or compositionally by this use limitation in a manner that distinguishes over Xie's laminate. Xie does not teach is the hole diameter and density claimed.

7. Regarding claim 1, Furukawa teaches a pressure-sensitive adhesive sheet that can be adhered to a plate (title & [0490 & 0846]) with small apertures that are 5 μ m to 50 μ m in diameter with an aperture density of above 10 holes/cm² (over 1000 holes/100 cm²) [0853]. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05 I. One of ordinary skill in the art would have been motivated to have apertures with a diameter small to make them unnoticeable but large enough for air bubbles to pass through and a density high enough for air bubbles to pass through [0853]. Also, it would have been obvious to form apertures in Xie's pressure sensitive adhesive sheet. One of ordinary skill in the art would have been motivated to eliminate air bubbles, which would produce a better image [0015] and eliminate the cost of a reduced pressure chamber for the application of the adhesive sheet [0012].

8. It is pointed out that the conferring of holes to the laminate of Xie would not be expected to alter the reported storage modulus or loss tangent values of the laminate of Xie. Applicant demonstrates in the Specification in example 3 and comparative example 2 that the presence of the holes does not affect the storage modulus or loss tangent.

9. Regarding claims 3/1 and 3/2, Furukawa teaches the apertures to be formed with a laser [0852]. It would have been obvious to use a laser to form holes in a pressure sensitive adhesive sheet. One of ordinary skill in the art, wishing to form small apertures like Furukawa, would have been motivated to use a laser.

10. Claims 3/1 & 3/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xie et al. (U.S. Patent No. 6,503,620) (hereinafter "Xie") in view of Furukawa et al. (U.S. Pub. No. 2001/0053648) (hereinafter "Furukawa"), as applied to claims 1 and 2 above, further in view of Andriash (U.S. Patent No. 5,679,435) (hereinafter "Andriash").

11. In the event that Furukawa does not expressly motivate laser perforation of pressure-sensitive adhesive sheets over mechanical perforation, Andriash explicitly teaches perforation of pressure sensitive adhesive sheets over mechanical punching due to the dies becoming gummed up with the adhesive layer (col. 5, lines 34-40 & col. 3, lines 60-67). It would have been obvious to one of ordinary skill in the art at the time of invention to apply laser perforation to the form the holes of the pressure-sensitive adhesive sheet of Aoyama. One of ordinary skill in the art would have been motivated use a method that cuts through multiple materials easily and does not clog when cutting through an adhesive layer (col. 5, lines 34-40 & col. 3, lines 63-67)

Response to Arguments

12. In response to Applicant's argument on page 7, paragraph 2 that it would not be obvious to modify Xie's pressure sensitive adhesive with holes, the apertures, as inherently demonstrated by Applicant in the Specification in example 3 and comparative example 2, would not mechanically weaken (change the storage modulus) a non-apertured pressure sensitive adhesive layer.

13. Furthermore, it would have been obvious to add apertures to eliminate air bubbles. Although Furukawa only teaches improvements to the decorative quality of the adhesive sheet, it is also well known in the art that air bubbles lower the bond strength of a pressure-sensitive adhesive sheet. Yang et al. (2003/0192638) (hereinafter "Yang") provide the common teaching that it would have been obvious to apply a vapor transmissive layer to a pressure sensitive adhesive sheet. Yang teaches that bubbles cause delamination and a reduction in bond strength, a well-known undesired feature in the pressure-sensitive adhesive art [0005 & 0068]. Therefore, one of ordinary skill would have been motivated to eliminate air bubbles, and subsequently desire the apertures (vapor transmissive layer) of Furukawa, not only to improve the decorative qualities of the PSA but also the strength of the bond. The addition of the apertures of Furukawa would not comprise the inventive feature of Xie but, conversely, would improve it.

14. In response to Applicant's argument on page 8, paragraph 2 that Applicant uses the storage modulus and loss tangent to measure air entrapment removability is a recitation of the intended use of the claimed invention. An intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use,

then it meets the claim. The pressure-sensitive adhesive sheet of Xie/Furukawa is capable of performing the intended use.

15. Applicant's remaining arguments, all of which address the combination of Xie/Eevers, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff A. Vonch whose telephone number is (571) 270-1134. The examiner can normally be reached on Monday to Thursday 8:30-6:00 EST.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

/J. A. V./
Jeff A. Vonch
Patent Examiner, Art Unit 1794
December 2nd, 2009